

Method and device for the uniform bonding of a nonwoven

A nonwoven comprising cut fibres and/or filaments such as also spunbond fibres and/or mixed with natural fibres such as also pulp does not have a uniform distribution of fibres in the longitudinal and transverse direction as a result of the manufacturing conditions. The fibres are stretched substantially in the longitudinal direction of the nonwoven so that a lower strength after hydrodynamic needle-punching, for example, is obtained in the transverse direction.

The object of the invention is to find a method for obtaining a uniform bonded nonwoven over the surface in both MD and CD directions and thus obtaining a nonwoven having overall increased bonding.

This object is solved in that before, during and/or after a first hydrodynamic needle-punching and/or a subsequent hydrodynamic needle-punching over the width, the nonwoven at least partially undergoes a forced re-orientation of the fibres and the nonwoven is then subjected to a further water jet treatment. The re-orientation of the fibres can be produced during lateral stretching, during pressing and/or merely by surface treatment such as brushing or using water jets aligned such that they are laterally obliquely staggered or changing. In this way, the nonwoven acquires a higher strength than would be possible without this re-orientation of the fibres.

This treatment can take place many times in succession. Care should be taken here to ensure that the nonwoven is uniformly stretched over the width, for example, which is achieved if the nonwoven is supported over the complete surface during stretching, brushing or pressing and the forces acting on the nonwoven act uniformly on the nonwoven over the width. Devices for this purpose are known from the

textiles field for treating woven fabric and knitted fabrics.